

IN THE SPECIFICATION:

Please replace the paragraph beginning at page 7, line 32, and bridging to page 8, line 12, with the following rewritten paragraph:

A first aspect of the present invention provides an expander comprising a cylinder, a shaft having an eccentric portion, a roller which is fitted to the eccentric portion and which eccentrically rotates inside the cylinder, a closing member for closing both end surfaces of the cylinder, a vane for partitioning a space formed by the cylinder, the roller and the closing member into a plurality of working chambers, a suction hole through which working fluid flows into the working chamber, a discharge hole through which the working fluid is discharged from the working chamber into a discharge space, and flow-in timing control means which controls the flow of the working fluid into the suction hole, in which the expander expands the working fluid, wherein the expander which expands the working fluid further comprises pressure ratio control means which varies a ratio between pressure when expansion stroke of the working chamber is started and pressure when the expansion stroke is completed and a discharge hole through which the working fluid is discharged from the working chamber into a discharge space, wherein the discharge hole is provided with a differential pressure regulating valve which is operated by a difference between pressure in the working chamber and pressure in said discharge space.

Please replace the paragraph beginning at page 8, line 13, with the following rewritten paragraph:

With this aspect, even if the pressure in the discharge space is varied, the pressure in the working chamber and the pressure in the discharge space when the expansion stroke is completed can match with each other, and excessive expansion loss of the expander can be prevented. Especially, the excessive expansion loss can be prevented from being generated with an extremely simple structure that the differential pressure regulating valve is only added to the discharge hole of an expander. Thus an efficient expander can be provided.

Please delete the paragraph beginning at page 8, line 19.

Please delete the paragraph beginning at page 8, line 24.

Please delete the paragraph beginning at page 8, line 31.

Please delete the paragraph beginning at page 8, line 34 and bridging to page 9, line 1.

Please replace the paragraph beginning at page 9, line 2 with the following rewritten paragraph:

According to a ~~fourth second~~ aspect of the invention, in the expander of the ~~third first~~ aspect, the differential pressure regulating valve is closed when the pressure in the working chamber is lower than the pressure in the discharge space.

Please replace the paragraph beginning at page 9, line 12, with the following rewritten paragraph:

According to the ~~fifth third~~ aspect of the invention, in the expander of the ~~fourth second~~ aspect, the differential pressure regulating valve is a reed valve.

Please replace the paragraph beginning at page 9, line 19, with the following rewritten paragraph:

According to a ~~sixth fourth~~ aspect of the invention, in the expander of the ~~fourth second~~ aspect, the differential pressure regulating valve has a circular conical valve portion.

Please delete the paragraph beginning at page 9, line 25.

Please delete the paragraph beginning at page 9, line 31.

Please delete the paragraph beginning at page 9, line 34 and bridging to page 10, line

1.

Please delete the paragraph beginning at page 10, line 2.

Please delete the paragraph beginning at page 10, line 7.

Please delete the paragraph beginning at page 10, line 11.

Please delete the paragraph beginning at page 10, line 15.

Please delete the paragraph beginning at page 10, line 22.

Please replace the paragraph beginning at page 10, line 29, with the following rewritten paragraph:

According to ~~an eleventh~~ a fifth aspect of the invention, in the expander of any one of the first to ~~tenth~~ fourth aspects, fluid which expands from liquid phase or supercritical phase to gas-liquid two-phase is used as the working fluid.

Please replace the paragraph beginning at page 11, line 5, with the following rewritten paragraph:

According to a ~~twelfth~~ sixth aspect of the invention, in the expander of ~~any one of the first~~ ~~to eleventh aspects~~ the fifth aspect, the expander is utilized in a heat pump cycle which uses carbon dioxide as the working fluid.

Please replace the paragraph beginning at page 11, line 15, with the following rewritten paragraph:

According to a ~~thirteenth~~ seventh aspect of the invention, in the expander of the ~~twelfth~~ sixth aspect, a shaft of the expander is directly connected to a shaft of a compressor used in the heat pump cycle.